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LOUISVILLE MEDICAL NEWS.

"NEC TENUI PENNÂ."

SATURDAY, SEPTEMBER 6, 1884.

Original.

SOME OBSERVATIONS BEARING UPON THE INFECTIOUS NATURE OF TUBERCULOSIS.

BY WALKER SCHELL, M. D.

Since Koch published his great discovery in March, 1882, the pathology of lung diseases has become more clear, and classification has become more simple. It has also become possible to make a differential diagnosis with more certainty, and to detect phthisis pulmonum at an earlier stage in its development.

The character of the testimony in support of the infectious nature of tuberculosis is such, coming as it does from almost all the great clinical teachers of the world, as to apparently demonstrate its truth beyond the reasonable doubt, and leaves nothing very new to be said on the subject. More testimony, however, can not be amiss, even from an humble source.

In the early history of the case of Mr. H., there had been much doubt as to the nature of his disease by the gentlemen who examined him. Evidently the physical signs were not at first such as to clearly point out the real nature of his disease. Still we are all sufficiently often *in nubibus* as to diagnosis to make us charitable. Whatever of doubt may once have existed is now no longer present. The microscopical examination of his sputa revealed vast numbers of alveolar epithelium cells, and many of the cells were in a state of fatty degeneration; others contained myeline. White blood cells and numerous elastic fibers were found in different microscopical preparations from his sputa, together with various forms of bacteria, chiefly, however, micrococci and torula chains. Vast numbers of bacilli tuberculosis were present. Fuchsin was used to dye them, and Methylin blue to color the background. The *exodus fatalis* in this case is near, and the vast number of bacilli show the character of the infection.

Miss A., aged twenty-two years. Four brothers and one sister have died of this disease. The apices of both lungs are infiltrated. The temperature varies from 99° 101° F. She has had consumption for over three years. She apparently improves at times Her sputa has been often examined microscopically. Sometimes bacilli have not been found, and at these times she was better as a rule; and when present they were usually few in number and small in size. She lives upon a farm, in a log cabin. The slow progress of the disease may be attributed, in part, to her surroundings. She was infected during the illness of the members of her family with this disease.

Wm. G. has a considerable deposit in the left pulmonary apex. The disease is more acute in this case than in the case of Miss A. The microscope reveals the presence of alveolar epithelium, white and red blood cells, and elastic fibers. Bacilli have invariably been found in his sputa, and often in considerable numbers. The family history in this case is good, so far as can be learned. Alcohol and exposure in this case may have acted as predisposing causes.

These three cases have a somewhat typical history, and, with slight variations, are such as we often meet in practice. They serve to illustrate the fact that the number and size of the bacilli bear an important relation to the clinical history of the case. In one of these cases there is a direct history of infection. Villemin demonstrated that this disease could be produced by vaccination with tuberculous matter. We are now in a condition to understand the experiments of Klebs, Sibert, and Cohnheim.

(*Die Tuberculose vom Standpunkte der Infectionslehre*, 1880.) These experiments were before the specific cause of phthisis was known. We did not then know that the specific poison of tuberculosis was in the nature of a parasite. The old doctrine of the hereditary nature of this disease, and the old terms of description, *habitus phthisicus*, etc., have stood in the way of popular and universal acceptance of this theory. I know a family where the grandmother died at about the age of ninety from an intra-capsular fracture of the hip-joint, and the grandfather at the age of seventy-five years of pneumonitis cruposa acuta, and the mother of Bright's disease, at sixty-five years, and father at about fifty-four years from cirrhosis of the liver, with hydro-peritoneum, and yet of the children of these parents and grandparents, three have died of phthisis pulmonum and two are in the advanced stages of the disease, having had hemorrhages, night-sweats, chills, etc., and an additional sister has ozena scrofulosa, and a brother has "cough." None of the cousins of these children have died of this disease, and the uncles and aunts are all living, as far as I can learn. An uncle of the father of these children died in the nineties, and was a distinguished pioneer minister of the Methodist Church.

When a husband or wife is seized with phthisis the disease, as a rule, also attacks the one at first free from it. Heredity does not explain these cases. When the child of consumptive parents is early seized with the disease it does not follow that the disease is hereditary, in the ordinary sense of that term, since it may have been infected from the milk, sputa, by inoculation, etc. Although the bacillus tuberculosis has been extensively cultivated, we do not know its life-cycle, and it may enter the egg with the spermatozoa, or it may be contained in the egg itself. In short, there are so many ways of possible infection that it is not necessary to assume heredity. The milk of consumptive cows should not be sold, and a consumptive woman should on no account be allowed to place her child to the breast. A consumptive should not sleep in the same room with other members of the family. Tappeiner proved by experiment that dogs will contract consumption from the inhalation of the sputa of a consumptive. Few animals resist infection as do dogs. Ziemssen has observed that a very large per cent of the Sisters in the hospital at Munich die of consumption. That individuals escape infection argues nothing against the theory, since the same fact is observed in all other infectious diseases. Buchner has shown that bacteria depend much upon the culture fluid. I witnessed many of these experiments while a student under him. For experiments and observations the reader is referred to *Nägeli* (*Untersuchung über midere Pilze, München*, 1882). The *habitus phthisicus*, so called, may be a valuable auxiliary to infection. May not heredity consist in a favorable constitutional soil, in which the bacilli can multiply? The freedom of pioneers from this disease stands in marked contrast to the high death-rate in populous States. The greater mortality from this cause in cities over the country is a vast experiment bearing on the infectious nature of phthisis. The infecting power of purulent discharges, and the sputa, must be destroyed. Ventilation of consumptive wards is of the highest importance, since any one who will take the trouble can easily prove that the number of bacilli carried out of these wards is in proportion to the air current. The freedom of high altitudes is without doubt due in part to the thoroughness of lung ventilation.

The truth of the matter is, there is no hope for a consumptive in the wards of a hospital, and his admission with other patients is little short of a crime. All carious glands should, if possible, be removed by operation, and the cavities of the so-called scrofulous abscesses thoroughly scraped by a Volkman sharp-spoon. Miliary tubercles can often be seen with the unaided eye, lining *the walls* of these abscess cavities.

In fungus disease of joints, bones, etc., operations must be thorough, and in some forms of caries pachylosis thermo-cautery is of great value.

In short, in all forms of disease, where tuberculosis is a factor of causation, we must remember the specific and infectious nature of the process.

To Stimulate fraternity, the Philadelphia Medical World suggests that the Northern delegates to the next meeting of the American Medical Association rendezvous at Louisville or St. Louis and charter a steamer for the trip both ways, and that the passengers use the steamer as a hotel while at New Orleans. While for some this mode of travel would consume too much time, those who can adopt this plan can be assured of an enjoyable trip.

Miscellany.

SEA AIR.—A strong sea air, such as is breathed on ship-board, and at the shore during a sea breeze, is always moister than the atmosphere of inland places, and more or less impregnated with saline particles.

Much is said about the relative humidity of various sea-side places, but it may be accepted as an axiomatic fact that air blown directly off the sea any where is much moister at the water's edge than the air farther inland.

Sea-side towns located at the extremities of capes, where the wind blows off large bodies of water on nearly all sides, will, of course, have a more humid air than those not so exposed. Thus Atlantic City has been found experimentally to have a much drier air than most sea-shore resorts. This may be partly due to the trend of the coast at that point and to its distance from the mouth of any large river, since winds often seem to focus at the mouths of rivers, and the stronger the winds from the seaward the greater the degree of moisture. Furthermore, the large extent of very dry, sandy barrens directly behind the town causes the land breezes, which always prevail during a part of the time at every point upon the coast, to be particularly devoid of moisture. Let it be understood, then, that sea air, whether at the tropics or at the extreme north, is always a distinctly moist air, and, notwithstanding the prevalent assumptions about the value of dry air in the treatment of nearly every disease, there is no doubt that to the greater humidity of sea air are partly due some of the peculiar advantages which clinical experience has shown to result from a residence at the sea-shore.

It is a wet soil rather than a moist air which is so injurious to health, and a considerable portion of our Atlantic coast, including that bordering the southern part of New Jersey, has an exceedingly dry, porous, sandy soil, which permits water to rapidly sink away, except during spells of very rainy weather.

The mucous membranes of the respiratory tract then are, during an ocean voyage constantly and at the sea-shore intermittently, bathed with an alkaline and alterative spray, which, in case of the sojourner at the sea-side, can be made strong or mild accordingly as he spends most of his time at the water's edge or some hundreds of feet farther back.

Still another important consideration is that sea air—that is, air blown directly off the ocean—is pure in the sense of being free from all noxious effluvia, and especially from the bacteria which are now believed to cause so many formidable diseases.

Thus, to briefly summarize, it has been shown that sea air contains more ozone, is denser and therefore more invigorating, as well as moister and purer, than the atmosphere of interior localities; that it is also warmer in winter and cooler in summer; and, besides, that it contains in suspension a very appreciable amount of saline particles, which are alkaline in reaction and possessed of alterative virtues. It has been shown, further, that the greater atmospheric pressure at the sea level exerts certain effects upon the local blood-supply of various organs of the body.

These facts being admitted as well as established, the therapeutist should, on *a priori* grounds, expect certain definite effects from sea air upon patients afflicted with diseases of the respiratory organs. We might expect (1) in all suitable cases a general tonic influence, with increased appetite and improved assimilation; (2) we should look for a direct and positive stimulant and alterative impression (sometimes, doubtless, too strongly stimulant) upon the mucous membranes of the upper air-passages, with probably the same effects in a less degree upon the bronchial tubes and alveoli.—*Boardman Reed, M. D., in New York Medical Journal.*

OBSERVATIONS ON A DECAPITATED HEAD. We transcribe from the *Revue Scientifique*, July 5th, the principal part of a paper by Dr. Petitgrand, giving an account of the observations he had the opportunity of making upon an Annamite who was decapitated, at Saigon, in 1875, an account characterized by the editor of the *Revue* as highly important, as furnishing the most precise evidence of the presence of consciousness after decapitation that exists. The man executed was a pirate of robust frame and brave demeanor, and M. Petitgrand concentrated his whole attention upon him. He was placed in a kneeling posture, strongly attached to a solid post in front of him, with the head and neck voluntarily and strongly flexed. The place for the blow having been marked with betel-juice, the head was struck off at one blow by means of a long sword having a broad blade—the procedure to be properly carried out requiring great address on the part of the executioner, and much *sang-froid* on

that of the culprit. When this is the case there is of course far less contusion and concussion of the spinal cord than with the guillotine; and, therefore, so far a greater possibility of an ulterior manifestation of the functions of the encephalon. During the preparations, Dr. Petitgrand never withdrew his eyes from the culprit. placed at two meter's distance only, and with whom he more than once exchanged looks. The head fell within a meter and a half from him, without, as ordinarily, rolling away, and the divided part of the neck resting on the sand, the hemorrhage which ensued was very slight. At this instant he was startled at finding the eyes of the head steadily fixed on his own, and not believing that this could be an act of consciousness, he rapidly described a quarter of a circle around the head which lay at his feet, and saw plainly the eyes following this movement. He now returned to his former position but more slowly, and the eyes followed him for "a very short instant," and then suddenly ceased to do so. At this moment the face expressed manifest anguish, the poignant anguish of a person in a state of acute asphyxia. The mouth opened violently, as if to take a last gasp of respirable air, and the head, thus displaced of its equilibrium, rolled on its side. This contraction of the maxillary muscles was the last manifestation of life, a period of from fifteen to twenty seconds having elapsed since decapitation. From these facts Dr. Petitgrand draws these conclusions: (1) That the head separated from the body is in possession of all its faculties as long as the hemorrhage is restrained within certain limits, and that the proportion of oxygen dissolved in the blood is sufficient for the maintainance of the nervous function, that is for a short period, which, in any case would not exceed half a minute. (2) That the repeated convulsive movements of the lower jaw, after the head has become detached—movements which, without doubt, have given rise to the expression, "biting the dust"—are nothing else than the habitual reflex movements of the face in acute asphyxia. These can not be absent when the little blood contained in the decapitated head flows away or becomes disoxygenated; and are caused by the sensation (probably conscious) of the want of necessary oxygen in the blood remaining in the encephalon. On the present occasion Dr. Petitgrand had no opportunity of observing the trunk of this beheaded man; but he has had opportunities of observing it on other occasions, and has always noted the following circumstances: The head once detached, the trunk (the body being attached by cords to the post is unable to fall) suddenly assumes the vertical position, columns of arterial blood springing up to a meter or more in height. This straightening of the trunk, and the jets of blood being simultaneous, are in fact related to each other as cause and effect; for at each new systole, manifested by the projection of a column of blood, the trunk is raised, to bend again immediately. The jets soon do not ascend to more than a few centimeters, and the movements of the trunk are reduced to mere oscillations. After from twelve to fifteen systoles, all the blood is evacuated and the the trunk remains motionless, and as it were suspended to the post, which prevents its falling to the ground. Dr. Petitgrand has never noticed any elevation of the ribs or sinking of the epigastrium, or any other sign of an attempt at respiration. The heart seems to continue to live awhile its own proper life, as is shown by its violent systoles, which are capable of effecting the stretching of the trunk.—*Medical Times.*

A Difference among Big Doctors.—A very decided difference of opinion would appear to exist with respect to the exact identity and properties of the various bacilli which have been associated hitherto with several of the infective diseases. The experiments of Pasteur on the bacillus anthracis have been repeated by Koch and others with directly contradictory results, and Dr. Klein has now published (*Centralblatt fur die Med. Wissenschaften*, No. 30) a series of observations which he has made upon the micro-organism which has been found by Friedländer and others in the sputa and tissue in acute pneumonia. Following out a similar line of investigation to that taken by other observers, he infected small animals, mice and rabbits, with typical pneumonic sputa. Some of these were quite unaffected thereby, others were killed within three or four days, with symptoms of septicemia. There seemed to be two distinct forms of septicemia, however, one of which was characterized by remarkable changes in the intestinal tract, severe diarrhea during life and marked signs of peritonitis after death accompanying the other symptoms and post-mortem appearances which are indicitive of profound blood-poisoning. Blood taken from these animals and

injected into others produced a similar series of pathological changes. In the second form of septicemia no diarrhea or peritoneal effusion took place. Both lungs were hyperemic, but no signs of croupous pneumonia could be discovered. Numerous micrococci were found in the vessels of the lungs and also in the blood of the heart. These were mostly oval in shape, somewhat pointed, and surrounded with a distinct hyaline capsule. Injections were made with blood from these cases also, were found to set up corresponding changes in healthy animals. It is remarkable that in neither form of blood poisoning was there any reproduction of the croupous pneumonia from which the infective material was derived. Whatever poison, therefore, may have been instrumental in setting up the septicemia, it is clear that it must have been present in the pneumonic sputa independently of the poison proper to the disease itself. The hyaline capsule, which Friedländer considered to be characteristic of the pneumo-coccus, has been observed by Klein and others in the micrococci found in pyemia.

A Case of Tubal Pregnancy.—Dr. Henry Hun, of Albany, records in the American Journal of the Medical Sciences for July, 1884, a case of tubal pregnancy in which the cyst burst at about the twenty-fifth day, and the patient died. Dr. Hun obtained the specimen, and after having rendered the embryo transparent by oil of cloves, carefully studied it and made an accurate drawing of it.

In this case the ovum was in the right fallopian tube, and its corpus luteum was in the left ovary. In a considerable number of cases of tubal pregnancy the corpus luteum is found in the ovary of the other side, and it is very possible that this unusual origin of the ovum may be the cause of the tubal pregnancy, for if the tube bends over and reaches the opposite ovary it will be apt to be so bent and twisted that the ovum will meet with great diffculty in passing through it, or if an impregnated ovum passes across the pelvis and enters the tube of the other side so much time will be consumed in its journey that it may develop to such a size before it gets to the uterus that it can not pass through the tube, and will continue its development in this organ. This is the only cause that can be assigned in Dr. Hun's case, for there was no occlusion of the tube by tumors, bands of adhesions, or displacement of the uterus, as are sometimes found in these cases; neither was there any great fright or emotion experienced at or near the time of sexual intercourse, which in a number of cases has appeared to cause the extra-uterine pregnancy.

Occurrence of a rare Human Tapeworm (Tenia Flavopunctata). — Dr. Joseph Leidy, of the University of Pennsylvania, describes in the American Journal of Medical Sciences for July, 1884, the tenia flavopunctata, a rare human tapeworm, which has now been observed for the second time, both cases occurring in this country, and infesting children. It is not improbable that the species is more common than the observations would warrant us in believing, for from the smallness of the worm and the generally prevailing ignorance of the distinctions in the more common species, it might readily be passed for immature portions of these.

Professor Hoyen has just published an elaborate lecture in the *Revue Scientifique* on the treatment of cholera, in which he chiefly advocates ipecacuanha and opium in the earlier stages, and black sulphide of mercury with salicylate of bismuth in the more advanced periods. When the patient falls into the state of algidity and collapse, the professor recommends the intravenous injection of the following solution (Medical Times):

Aq. simpl., ...	1,000 parts.
Chloride of sodium, ...	5 "
Hydrate of sodium, ...	1 "
Sulphate of sodium, ...	25 "

Fecal Umbilical Fistula.—There have recently been two cases of this chronic affection in the Louise Ward (Hospital for Sick Children, Great Ormond St., London), and in each instance a cure was permanently established. The treatment consisted in thoroughly cleaning out the alimentary canal by purgative and enema, and then in keeping it in a state of absolute rest by the continuous administration of small doses of opium. At the same time cod-liver oil was prescribed, and the wound was left undisturbed under a pad of dry wool.—*Medical Times.*

The Canadian Practitioner has a new editorial staff. Drs. Cameron and Nevitt have resigned, and Drs. J. E. Graham and R. H. B. Aikins have taken their places. Dr. Wright continues upon the staff.

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H. A. COTTELL, M. D., - - - - - - - - Editor.

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MALARIA.

Among the names made prominent by inquiries into the nature of malaria is that of Tommasi-Crudeli. Recently before the International Medical Congress he read a paper which embodies the results of close study of the subject in its classic Italian haunts. In common with many modern writers he rejects the idea that it is exclusively a marsh miasm, reasons out the facts to the conclusion that it must be a specific solid ferment, and puts in a claim for the bacillus found by himself and Klebs in 1879.

He refers to the report of a commission as confirmatory of his position that Lancisi was wrong in opposing the proposed clearing of forests in the neighborhood of the Pontine Marshes. Clearing off the forests is, in his opinion, an approved means of making salubrious those lands that have been too damp. Solar heat causes, by evaporation, a drying of the superficial strata in which the ferment breeds.

While he favored the usual drainage systems for lessening that permanent humidity of the soil which is one of the necessary conditions, he holds that the drainage from above by plantations of eucalyptus is, in his observation, a failure. The eucalyptus forests of Australia themselves are very malarious. Great hopes were founded on the statements of the press that the locality of the Tre Fontane, near Rome, had been freed from malaria by means of eucalyptus. But in 1882 there was a very grave outbreak in this colony, while all the rest of the Campagna enjoyed exceptional salubrity. The uncertainty of its growth in our country has checked the mania for planting the blue gum, which at one time bid fair to seize our people. We can but regret to learn that other lands more hospitable to the tree have reaped from it no advantage.

A complete atmospheric purification is difficult to procure, as it depends greatly upon the natural growth of communities. It is gained when we shield the malarial soil from direct contact with the air by building dwellings upon it, paving the streets, and coating the unpaved surfaces with a varnish of grass sods.

There is small hope of modifying the composition of the Italian soil so as to make it entirely sterile to malaria without taking away its fertility in general. This consummation is sometimes approached by subsoil drainage combined with forced cultivation. Yet this effect is not constant. History shows that there is a relapse whenever the hand of man has been stayed by the civil changes of the centuries.

Forced cultivation requires the presence of the agriculturist in the malarial region during the fever season and when the newly turnedup soil is exhaling a very deadly miasm. To lower the risk to health to a mimimum, there remains one means, that of fortifying the individual by personal prophylactics. While the alkaloids of cinchonia are the best remedies for the acute malarial fevers, for the chronic infection arsenic is superior. A systematic resort to arsenic in daily quantities of 3–100 gr., increased to 15–100 gr., given just before the spring season opens and on through the summer has been shown by Dr. Crudeli to be an admirable method of preventing malarial fevers and the usual anemia. He thinks it better in the long run than the daily use of quinine.

The only very remarkable part of the

paper we are considering was the advocacy of the lemon as an antiperiodic. This use of lemon juice, he says, is well known, and in this we agree with him. In the Southern States a double decoction of coffee and lemon juice has been in high repute for many years. Dr. Crudeli prepares it as follows:

One lemon cut into pieces, peeling and all, is put into three moderate glassfuls of water, which is boiled down to one glassful, and, after cooling and straining through linen, drunk by the patient at one draught, while fasting.

He claims that this will relieve even when quinine fails. It is certainly cheap and simple. We hope a trial will be made of it by our Southern readers, and results published after the autumnal intermittents have passed away.

Obituary.

WAR DEPT. SURGEON-GENERAL'S OFFICE,
Washington, D. C., August 20, 1884.

In announcing to the Officers of the Medical Department the death of Joseph Janvier Woodward, Surgeon and Brevet Lieutenant-Colonel, U. S. Army, which occurred near Philadelphia, Pa., August 17, 1884, the Surgeon-General wishes to offer his tribute of respect to the memory of the deceased, whose distinguished career and valuable services, for a period of twenty-three years, have shed luster on the Corps, and for whose untimely loss feelings of profound regret will be shared alike by his comrades in arms and by the profession at large.

Doctor Woodward was born in Philadelphia, Pa., October 30, 1833, and was educated at the Central High School of that city, graduated with honor as Bachelor of Arts in 1850, and receiving the degree of Master of Arts from the same institution in 1855.

He graduated in medicine at the University of Pennsylvania, April, 1853; entered the Army as Assistant Surgeon, August 5, 1865; became Captain and Assistant Surgeon, July 28, 1866; Major and Surgeon, June 26, 1876. "For faithful and meritorious services during the war" he received the brevets of Captain, Major, and Lieutenant-Colonel, U. S. Army.

He was assigned to duty in this Office May 19, 1862, and from that date until the beginning of the illness which terminated in his death was intimately identified with its professional and scientific work.

While the valuable results of his life's labor are comprehended in a long list of miscellaneous publications, both professional and scientific, too familiar to the Corps to require individual mention, his greatest triumphs were won in the field of microscopical investigation in normal and pathological histology, and in his happy application of photo-micrography to the purposes of science. In these pursuits he attained remarkable success, and achieved an enviable, world-wide reputation, leaving to science and medicine lessons of undoubted value and usefulness. Of his strictly professional work the medical portion of the Medical and Surgical History of the War of the Rebellion was the crowning achievement. In the second part of this work he developed the results of his careful investigations into the nature and pathology of the intestinal diseases which had proved so fatal in the late war. Here also he displayed his wonderful capacity for that minute and exhaustive research which forms so striking a feature of his writings.

As in the case of his co-laborer, Otis, he yields to other hands the honor of completing his labors.

In addition to his engrossing professional duties, his restless activity of mind led him to seek recreation in his favorite studies, Physics, Art, and Philosophy.

Endowed with a retentive memory and of untiring industry, he acquired a vast store of information which he held available for use at will; fluent of speech, he took delight in the expression of his views and opinions both in social converse and in the arena of scientific debate.

His fund of knowledge, his strong convictions, his tenacity of opinion, and his quick perception made him a controversialist of no low order.

With such a record, it is needless to speak of his zeal, his ambition, or his devotion to his profession, and especially to the reputation of the Corps of which he was so bright an ornament.

Of a sensitive, high-strung, nervous organization, the confinement, anxiety, and labor to which he was subjected in his attendance upon the late President Garfield

during his long illness, proved too much for a mind and body already overstrained by incessant labor, and precipitated the illness which finally terminated his life.

At the time of his death Dr. Woodward was a member and ex-President of the American Medical Association, a member and ex-President of the Washington Philosophical Society, a member of the National Academy of Science, of the Association for the advancement of Science, of the Academy of Natural Sciences of Philadelphia, and of the College of Physicians and Surgeons of Philadelphia. He was an honorary member of several American and foreign scientific, medical, and microscopical societies, and the recipient of many distinguished honors from learned bodies in this country and abroad.

R. MURRAY,
Surgeon-General, U. S. Army.

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

At the instigation of Dr. Baron Mundy, the head of the "Viennese Volunteer Society for Saving Life," an experiment has been made at Aldershot camp upon the adaptability of the electric light in military ambulance work. A large party of professional experts, including the Director General of the Army Medical Department, watched the progress of the experiments with great interest. A movable steam engine was drawn by a pair of horses to a position, and about a hundred yards in front of it was placed a stand, on which were the dynamo, the lamp, and the apparatus for projecting the light, connected by a cable with the engine in the rear. Down in a valley the collecting station was located, with all transport complete of a bearer column of the Army Medical Department. On the opposite side of the valley a battle was supposed to have taken place during the hours of daylight, the wounded being represented by some hundred soldiers in the ordinary manner. The electric apparatus did not work so smoothly as was desirable, and its irradiation was intermittent. But when it was steady there was ample light, not only for the dressing of wounds, but to perform a capital operation. As soon as one section of the field had been cleared, a signal by lantern directed the ray on another portion. The only difficulty was in connection with the reverse slopes; the "pockets" and small hollows were left in profounder obscurity in contrast to those places where the electric ray fell. It was the general feeling that a good many arrangements will have to be perfected before the appliance can be of practical service. Its mobility must be increased, and it is a *sine que non* that the steadiness of the light be assured. It is easy to imagine a variety of conditions under which the enemy would strongly object to the field being lighted up, and that shell-fire would be directed at the illuminating agent, as there is no possibility of restricting its use in war time to simple ambulance purposes.

Another well known to the profession has "gone over to the majority." Mr. Cosear Hawkins, F. R. S., Sergeant-Surgeon to Her Majesty and Consulting Surgeon to St. George's Hospital, died at his house in Grosvenor Street on July 20th. Mr. Hawkins was the son the Rev. Edward Hawkins and grandson of Sir Cosear. He was born in 1798. He taught anatomy with Sir Charles Bell in the Hunterian School, and was President of the Royal College of Surgeons on two occasions.

Dr. Koch has given a lecture on Asiatic cholera to an audience of doctors and journalists. He exhibited to them specimens of the microbe and bacillus, which he had collected from the bodies of cholera patients last year in Egypt and in India, and last week at Toulon. He expressed his deliberate opinion that cholera can not be transmitted by contagion from man to man, nor by the atmosphere, but only by the excreta from the stomach and intestines. Cholera can only break out when the germ of the disease has been introduced into the bowels, and even then it can only be developed under a peculiar state of the mucous membrane. He considered drinks and fruits to be dangerous vehicles of cholera, not because either is unwholesome in itself, but because both might have been handled by persons suffering from or in contact with the disease. He recommended that the linen and bed-clothes of cholera patients should be burned, their rooms shut up for a week and disinfected. He regarded phenic acid as the best disinfectant, and opium as the best preventive. The cholera microbe, or bacillus, he regarded as a fish which could not live out of a moist medium. Dryness killed it.

The following lines, written by Lord Winchelsea, have given rise to much amusement lately:

DR. KOCH INTERVIEWED.—Dr. Koch's account of the origin of cholera at Toulon: "I am inclined to think it was brought by a merchant ship—some English vessel which did not scruple to hush up deaths occurring during the passage and falsify the log." (Times Correspondent, Toulon, July 9th.)

Oh, Doctor Koch, oh, Doctor Koch!
With horrid doubts you fill us;
You say it is a "microbe,"
We thought it a "bacillus."

But why, unless your learned skull
Is full of brains and water,
Declare an English merchantman
Sole author of the slaughter.

The French have been a-roving
This twelve-month to and fro,
And may have picked up "microbes"
For any thing you know.

The number of students at the London School of Medicine for Women is steadily increasing. Mrs. Garrett Anderson, M. D., reported lately that there were now forty women on the medical register, and one student had passed the first professional examination at the London University. Miss A. Clarke, one of the students had succeeding in obtaining in a competition the position of Assistant Physician to the Birmingham Children's Hospital.

The following prescription has been used for a great number of years by the medical officer of an indigo plantation, and is stated to have seldom failed in cholera attacks if used in time: Powdered opium, assafetida, cayenne pepper, of each one grain; to be made in a pill; one to be taken every four hours.

The International Medical Congress, held this year at Copenhagen, has gone off in a most satisfactory manner. At its final meeting the President, Profesor Panum, delivered a lecture. Addresses were also delivered by Professor Virchow, of Berlin, and Sir Risdon Bennett, of London, all expressing their thanks for the sympathy and hospitality with which they had been received. The President expressed his grateful acknowledgment to all who had assisted him in making this meeting of the Congress so eminently successful. The Congress has in every respect been a great success, as well in regard to the scientific field as to the concourse of foreign members, which even exceeded that in London in 1882. The members have met with great sympathy from the Royal House, the Government, the local authorities, and the citizens—indeed, from every one. The King gave a grand entertainment at Christiansborg Castle, and the city of Copenhagen a banquet. The excursion arranged by the committee to Elsinore, with a splendid *déjeûner* at Kronborg Castle, has left a deep impression on the memory of all who took part in it, and the farewell ball was a most brilliant ending to the festivities. As an illustration of the care taken to prevent the possibility of antagonistic national prejudices interfering with the harmony of the meeting, it is worthy of note that several of the most eminent German members delivered their addresses in French.

LONDON, August, 1884.

Selections.

RELATION BETWEEN THE SPLEEN AND THYROID.—In 1881 and 1882 I was in a district where goitre is endemic, and among upward of two thousand cases of goitres of all kinds I find, from reference to my notes of recorded cases, not a single case of anemia in a goitrous subject. This would be a very remarkable fact if there were really any such affinity as has been asserted between the spleen and the thyroid. Were this the case, we should with reason expect to find at least some degree of anemia in cases of hypertrophied thyroid. In hypertrophied spleen there is, I think I may say invariably, some degree of anemia or leucocythemia, varying directly as the amount and duration of the splenic enlargement. The question at issue being the identity of function of the spleen and thyroid, it appears to me that the fact, which is indisputable, that similar changes in the two organs do not produce similar effects on the mass of the blood, affords conclusive proof that the physiological functions of the two organs are, as far at least as the blood is concerned, dissimilar. Again, splenic enlargement in this country is almost exclusively malarial; thyroid enlargement, on the other hand, owns no such cause. Further, constitutional treatment, which with certainty reduces an enlarged spleen, has not the slightest effect on the enlarged thyroid body. And lastly, inunction of biniodide of mercury ointment in enlarged thyroid never, to my knowledge, results in cancrum oris, while such a result in malarial splenic enlarge-

ment is by no means uncommon in my experience.

The function of the thyroid body remains imperfectly defined; but, whatever that function may be, it appears certain that it has no affinity with the spleen as a blood-modifying organ.—*G. S. A. Ranking, M. D., Cantab., in The Lancet.*

LITHOTRITY AND LITHOTOMY.—In lecture No. 6 of his recent course, upon the Surgery of the Urinary Organs (Lancet), Sir Henry Thompson makes the following interesting statistical comparison between the results of lithotomy and lithotrity: In this country lithotrity was, before 1860, as we have already seen, slowly becoming responsible for a large share of the work in the hands of the leading operators. In most parts of the kingdom, however, it was still employed only for exceptional cases. But I was strongly of opinion that it was not sufficiently appreciated in this country, and that it ought to be much more widely employed, and I persistently urged this view in my earliest writings. (*Vide* The Lancet January 21, 1860.) Accordingly, among my first 200 cases of adult males, only 48, or not quite one fourth, were submitted to lithotomy. The proportion of cutting operations then gradually diminished henceforward to about one case in seven or eight. But in the end of 1878 I commenced to employ lithotrity at a single sitting, doing so extensively at the commencement of 1879. Since that date I have performed 196 cases by this method solely—that is, during a term of five years and a half—and only fifteen lithotomies, in all 211 cases, the mean age of the entire number being upward of sixty years. But, taking my last 125 operations up to the present date on adult calculous patients, only four have been treated by cutting; all the others—viz., 121—were cases of lithotrity at a single sitting.

The total result of all my operations by carefully adapting the two procedures during a period of about the last twenty-five years, is as follows: I have performed 812 operations on cases of all ages. The number of individuals on whom these operations have been performed is 716; some of the lithotrity patients having, of course, been operated on more than once, as will be stated hereafter. Of these cases 13 are adult females—10 by lithotomy, with one death, and 3 by lithotrity; 15 are children—12 by lithotomy, with one death, and 3 by lithotrity. The nwo operations (one suprapubic lithotomy) for foreign bodies recently introduced. There remain 782 cases of operation on the adult male.

Of these 782 adult male cases, 110, or one seventh of the entire number, were by lithotomy, with 39 deaths—one case in almost 3, or 35 per cent; 672 were by lithotrity, with 43 deaths—one case in 15½, or under 6½ per cent. A total of 782 adult male cases, with 82 deaths—*one case in 9½ or 10½ per cent.* It is worthy of remark that among the adult males no fewer than 595 individuals were upward of fifty years of age at the date of operation. I may now add that of the 716 individuals, 61 were operated on a second time, at various intervals, when a second stone of considerable size was developed; evidence existing in long-continued absence of symptoms after the first operation, that the calculus was undoubtedly a new formation. Nine patients were operated on a third time, three patients a fourth time, and two as many as five times. It is worthy of note that each of the last named, the history of whose operations extends over a period of from twelve to fifteen years, are now living in comfort. One has passed more uric acid than any man I have seen, unless the patient, No. 62 in the series, from whom I removed four large calculi at four different periods in the course of about sixteen years. In both cases each succeeding calculus of large size was a fresh deposit of uric acid, which each still continued to excrete largely, and not the mere accumulation of phosphates often so abundantly produced in a bladder incapable of emptying itself.

In analyzing the results of the preceding table it is unnecessary to say that it is not possible to make any comparison as to the relative value of lithotomy and lithotrity. The position of the two operations toward each other is no longer one to invite comparison, but is that of complementary relation. Each accomplishes a part for which the other is less competent; nor, for the same reason, is it any longer possible to compare the results obtained by different operators in regard of employing either method, unless each operator is guided by the same principle in applying them, for it is obvious that the surgeon who adopts lithotrity for the majority of his cases—that is for all but those which are the most difficult—necessarily obtains for his lithotomy only an unpromising residuum of exceptionally bad patients. And it is not to be forgotten, as Keith has remarked, that when

an operator obtains reputation, he attracts the worst cases, and is compelled to deal with some of the most unhappy examples of the disease, unless he refuses such applicants, a course which I have never pursued. During my entire experience I have refused operation to six patients only, and in each instance because I thought the proceeding was either entirely hopeless or impossible of performance. In one case I regretted my decision, for the patient lived long and suffered very severely. Hence the lithotomy of an operator who employs the knife only for the worst case in eight or ten can not be compared with that of the surgeon who applies it to a large proportion of his cases, and therefore to a considerable number of healthy and promising patients with not very large stones, such as I have always treated by lithotrity.

It is the sum total of result obtained by employing the two procedures which is to be regarded as the measure of the surgeon's success. And I think I may say that a list of 782 cases in male adults, the mean of whose united ages exceeds sixty years, with 82 deaths, or one in 9½ cases, is a result which will be held to justify the selection and adaptation of the method to the case, which has been adopted throughout this series. I venture to say that it is a result which has not, certainly to my knowledge, hitherto been realized. Thus we saw that Cheselden, with patients of this age, lost 6 in 14, or one death in 2.3 cases; that the Norwich rate for male adults was one death in 5 cases; that Keith advanced to a rate one death in 6½ of his adults, by both methods; that Ferguson, who had many bad cases sent him to King's College Hospital, lost one in 5, both methods. But while the sum total of my whole work has been one death in 9½, the result of the last five years, since I have adopted the one-sitting operation, has been still better—namely, one death in 12½ cases (211 elderly adults, with 17 deaths), or 8 per cent. While, if I take my very last 125 cases up to this date, and already referred to as containing only 4 cases of lithotomy, I have to report 6 deaths only (of which 2 were from the cutting operation), making only one death in 20, or a rate of less than 5 per cent.

THE TREATMENT OF CHOLERA.—W. C. Seaman, M. D., formerly Surgeon-Major of the "72d Highlanders," in India, gives in the Lancet his method of treating cholera, as follows: A dose of calomel, followed immediately by cold affusions, frequently applied. What led me to think of this treatment was this. At Mhow, Central India, in 1859, when some cases of cholera occurred in the 72d, I was advised by the late Deputy Inspector-General of Hospitals, Dr. Archibald Stewart, to try the cold affusion, which he said had been used with success in Bengal by a medical officer, whose name I am sorry I do not remember. I did so, and certainly with some success, inasmuch as the cramps were much relieved by it, and reaction to some extent obtained. I am writing from memory, having no notes of these cases, but (whether it was because I did not repeat the baths sufficiently often or not, I can not tell) I think I had not much more ultimate success than I had obtained under other methods of treatment. A few years later it occurred to me that, as in cholera the secretions are arrested, if I could introduce into the system a dose of calomel, which is said to promote all the secretions, and could then induce a certain amount of reaction by the cold affusion, the calomel might do good, being, as it were, on the spot, ready to promote secretion. When, then, cholera appeared in the regiment in 1865, I adopted this treatment. I usually began with ten grains of calomel, and if there was much vomiting, five grains more were given. The patient, even if in a state of complete collapse, was then stripped of all clothing, carried in the horizontal position to the bath-room, where he was laid on the bedstead without any bedding. Three or four large earthenware "chatties" of cold water, the coldest we could get, were then dashed over him. He was rubbed dry with towels as rapidly as possible and replaced in his bed. The patient almost invariably felt relief; the cramps were mitigated, and sometimes in cases of collapse the pulse could now be just felt. In about five minutes the bath was repeated as before, after which, even in the worse cases, the pulse could now generally be felt; the skin became warmer, and the patient would beg for another bath. With reaction, vomiting and purging gradually ceased. The cold affusion was used at least five or six times in each case, at intervals varying according to circumstances; and, as a rule, after each application of it the pulse grew stronger and all symptoms improved. Experience had taught me long before that all piling of bedclothes on a cholera patient, the application of heat, as by hot bottles, hot turpentine, etc., were almost loathed by

him, and that the only thing he ever begged for, besides water to drink, was to have his limbs rubbed when he was tortured with cramps. In the intervals between the baths the patient had merely a sheet thrown over him, with a thin blanket or coverlet; and if there were any lingering cramps, the parts affected were rubbed with the dry hand. Such was the treatment. I need hardly add that when all immediate danger was over, the patient always required the most careful and watchful treatment, not only for days, but for weeks. Sometimes diarrhea would come on, or consecutive fever, rendering recovery very slow. One patient, after recovery from cholera, succumbed to mucous enteritis fourteen days after admission. Only one patient I failed to rally from collapse. He was a staff sergeant, who lived by himself in a small detached bungalow, and was found early one morning by a soldier lying on the floor of his bedroom in a state of extreme collapse. I could make no impression on this case; he was too far gone when I saw him.

PREVENTION OF TRICHINOSIS.—1. Meat should not be eaten raw, nor in a partially cooked condition.

2. Thorough cooking is a perfectly efficient means of killing trichinæ. Large masses of meat (such as a ham), however, require several hours continuous cooking for the heat to penetrate throughout the entire mass. A medium-sized ham boiled for thirty minutes reaches a temperature of a little above 100° F. It requires 140° F. to positively kill the parasite. In the case of chops, steaks, and other small portions a much shorter time will suffice. A thorough broil of a few minutes will effectually destroy the life of the trichinæ. Ordinary salting and smoking does not destroy the parasite.

3. Thorough inspection of the meat. A regular examination should be made by the State. The matter is easily accomplished. The parts required for a perfectly satisfactory examination are two small fleshy masses situated near the kidneys, called the pillars of the diaphragm. These pieces belong to the "trimmings," and their removal in no way interferes with the value or appearance of the dressed hog.

"All hogs should be subjected to microscopic examination by experts, and no hog allowed to be cut up for sale as food until such an examination has been made. Those found invaded should be branded trichinous and their sale as food forbidden by law under penalty of a heavy fine." (Billings.)

A certificate could be given if examination proved satisfactory.

4. Prevent hogs from feeding upon raw offal and excrement, and avoid using the offal, etc., of animals subject to trichinosis, as a fertilizer.

5. The thorough destruction of all offal, excrement, etc., so that vermin (rats, etc.) may not devour it and become the carriers of this dread malady.

Rigid legislative enactment regulating the inspection of meat, the proper disposal of offal, excrement, etc., would, if properly enforced, go far toward stamping out this loathsome disease.—*William Hailes, Pathological Laboratory, Albany Medical College, in Medical Annals.*

CORTICAL LESIONS OF THE BRAIN.—Dr. M. Allen Starr, of New York, in the July number of the American Journal of the Medical Sciences, has collected the American cases of lesions of the central region of the brain and carefully studied their localized symptoms He finds that—

Disturbance of general sensation—including the senses of touch, pressure, pain, and temperature, together with the sense of the dislocation of a limb—may occur either in the form of subjective perceptions of such sensations without objective cause, or in the form of impairment of these sensations. In either case it indicates a disease in the central convolutions, and possibly in the adjacent portion of the parietal lobules.

The power of voluntary motion of the muscles of the opposite side of the body is located in the two central convolutions which border the fissure of Rolando. Motions of the face and tongue originate in the lower third of this region; motions of the arm, in the middle third; motions of the leg, in the upper third.

Spasms in or paralysis of a single group of muscles may indicate disease of its motor area. Extensive spasms or paralysis may indicate a large area of disease in this region, but if more marked in a single group of muscles than in others it may indicate a small focus of disease in the motor area of that group affecting other motor areas indirectly and coincidently. Paralysis following spasm in one group of muscles is a characteristic symptom of disease in the central region.

Disturbance of the power of speech indicates disease in the convolutions about the

fissure of Sylvius, on the left side in right-handed persons and on the right side in left-handed persons. If the patient can understand a question and can recall the words needed for a reply, but is unable to initiate the necessary motions involved in speaking, the disease is probably in the third frontal convolution, and in the adjacent portion of the anterior central convolution. If the patient can not recognize spoken language, but can repeat words after another, or can use exclamations on being irritated, the disease is probably in the first temporal convolution. If the patient can understand and can talk, but replaces a word desired by one that is unexpected, the disease is probably situated deep within the Sylvian fissure, or in the white substance of the brain, and involves the association fibers which join the convolutions just named

STRYCHNIA POISONING.—At a recent meeting of the St. Louis Medical Society, Dr. Atwood reported the following (St. Louis Medical and Surgical Journal): Dr. George Homan and myself met in the room of an individual who had continued spasms with complete trismus and froth about the mouth; his body was as rigid as steel. As it was impossible for him to swallow, we gave hypodermically half a grain of morphia and one one-hundredth of a grain of atropine; immediately afterward he received inhalations of chloroform, and in the course of fifteen minutes the convulsions ceased, the muscles of the jaw relaxed, and the man conversed; he was clear in his intellection. This was at five o'clock P. M., and the strychnia was taken four hours preceeding. He stated that he had taken three grains with suicidal intent. We left at eight o'clock P.M. I returned to find him improving, but in a few minutes the same toxic symptoms developed, only intensified. I immediately repeated the treatment, Dr. Homan not being present. The convulsions ceased, and he again assumed a favorable condition. Dr. Homan arriving, we remained with him till about eleven o'clock P. M., when, without repeating the hypodermic injection, we gave a thirty-grain dose of the bromide of calcium and of chloral hydrate, directing its repetition, and left him. In the morning of the next day he had muscular soreness, otherwise he was entirely well. Three grains of strychnia is justly considered almost necessarily fatal, and the treatment described was attended with unexpected success. There is no chemical antidote for the poison, and our treatment acts simply by counteracting effects. There was no call for emesis, it could have been of no service.

ON THE PATHOLOGY OF PAGET'S DISEASE OF THE NIPPLE.—Drs. Louis A. Duhring and Henry Wile, of the University of Pennsylvania, give, in the July number of the American Journal of the Medical Sciences, an instructive study of the pathology of Paget's disease, which has already evoked some discussion. The importance of the subject is apparent, and it ultimately resolves itself into the question of distinguishing between ordinary eczema of the nipple and another similar cutaneous pathological process which on good grounds is believed to lead to the formation of malignant disease of the mammary gland.

The affection is regarded by Drs. Duhring and Wile as an abnormal pro iferation and degeneration of the rete, with secondary destruction of the papillæ of the corium, and subsequent development of scirrhus cancer of the atrophying variety. The cancerous change originates in the epithelium of the smaller ducts, and advances from below upward and outward as far as the skin is concerned; later it attacks the gland structure; and the retraction of the nipple is an early sign of carcinomatous change.

NOTES OF FOUR CASES OF VARICOSE VEINS TREATED WITH HAMAMELIS.—(B. F. Nicholls, M. D.) In April, 1883, I read in the Philadelphia Medical Times, No. 402, an article by Dr. J. H. Musser on "The Treatment of Varicose Veins with Hamamelis." A few days after I read this article, Mrs. W., a married woman, age thirty-five, called at my office on account of swelling and varicose veins of the left leg. On examination I found the left leg considerably swollen, with here and there large dark spots, which on pressure were quite soft and somewhat tender. These spots were as large as eggs, and situated on the inner aspect of the calf. The right leg was all right. Mrs. W. was three and a half months pregnant with her fourth child. She had always experienced trouble with the veins of her left leg while pregnant, beginning about the third month of pregnancy and continuing till delivery. In her former pregnancies her leg had been treated by bandaging, which afforded some relief, but her distress was so great that at times she was compelled to seek relief by lying down. I concluded to try the hamamelis, and or-

dered her to take one teaspoonful extract hamamelis four times a day in a wineglassful of water. She began to improve at once, and continued to take the drug till delivered. Hér leg gave her no trouble, the swelling and varicose veins disappearing altogether. Mrs. W. is again pregnant, and the varicose veins appeared again at the usual time. She is now taking hamamelis with success.

The second case is a young colored man, age thirty; has had varicose veins for two years. He got some relief from bandaging, but relief was only temporary. Last November he came to my office with a ruptured vein, considerable oozing of blood. Put on a compress and ordered hamamelis, teaspoonful every three hours. Saw him next day, took off compress, no bleeding. Continued hamamelis. Did not see him again for two months, when he reported at my office well. Have seen him several times since, and he has had no return of varicose veins.

The third case was a woman, age fifty years; was a washerwoman; had had varicose veins for a long time; did not remember when they first came; was treated by adhesive strips and bandage, but always returned after the bandages were left off for a short time. I gave her hamamelis, two teaspoonfuls three times a day in water. She got entirely well in two months, and has remained so ever since.

The fourth case, a woman, age forty-seven, sent for me May 10, 1883. I found her sitting in a chair, bent forward till her face was between her knees, her hands clasped firmly together, her legs stuck out in front, covered with wet cloths. I do not think I ever saw in my life such a picture of utter hopelessness as this patient. When I approached her she looked up, and in the most piteous voice exclaimed, "For God's sake, can you do any thing for me?" On examining her legs I found the cause of all her trouble; both legs were a mass of ulcers from the knees to the ankles. From the ulcers was oozing a clear fluid, which soon turned the cloths black. Situated a little behind the knee were several bunches of varicose veins. I thought I had found the original trouble. On inquiry, she said at first, some five years ago her leg was full of large veins and considerably swelled, and the ulcers came afterward. I put her on extract of hamamelis, a teaspoonful every three hours, and told her to keep cloths wet with hamamelis applied to the leg. She recovered in two months, and all she has left to remind her of her former trouble is considerable discoloration on the anterior aspect of her legs. She walks all about the city, experiencing no trouble whatever.

In conclusion, I would say that I consider hamamelis almost a specific in varicose veins from almost any cause. I did not find it disagree in any way with my patients. It is not at all unpleasant to the taste.—*Medical Times.*

Locomotor Ataxia.—From a study of many cases Dr. G. M. Hammond arrives at the following conclusions:

1. That the absence of the patellar tendon reflex in locomotor ataxia is not always caused by sclerosis of the posterior columns.

2. That sclerosis of the posterior columns may exist without being accompanied by the ordinarily prominent symptoms of ataxia.

3. That congestion of the posterior half of the spinal cord may give rise to most, if not all, of the symptoms of locomotor ataxia.

4. That it is impossible during life to make a differential diagnosis between posterior spinal sclerosis and posterior spinal congestion.

5. That posterior spinal congestion is curable.

6. That there is no evidence to show that sclerosis, once existing in the spinal chord, has ever been removed.

7. That those cases of so-called locomotor ataxia which have been cured are simply cases of spinal congestion, more profound in the posterior half of the cord.—*N. Y. Medical Journal.*

On Opening and Drainage of Abscess Cavities in the Brain.—The antiseptic method of operating and after-treatment has not as yet been fully tested in operations upon the brain. This is natural, for not only have we inherited a just dread of dealing with an organ, the large majority of whose diseases are dangerous or fatal, but our knowledge of the physiological functions of the brain and of their pathological modifications being extremely limited, we are not in a position to form such an accurate diagnosis as calls for surgical interference. Drs. Christian Finger and E. W. Lee, of Chicago, in an extremely interesting paper on this subject in the July number of the American Journal of the Medical Sciences, consider

the treatment of traumatic cerebral abscess, and report a case which was successfully treated by opening and drainage.

Bergman, in discussing the treatment of cerebral abscess, unhesitatingly sets it down as an axiom that wherever there is an accumulation of pus trephining is most clearly and indubitably indicated, for the opening of an abscess in the brain is as necessary as in any other part of the body, and we would add even more so. A correct diagnosis of abscess having been made, the further difficulty presents itself of locating it with sufficient accuracy, so as to be able to find it. A number of cases are on record in which a correct diagnosis had been made, the trephine also put on more or less on the right place, but the knife or trocar being passed into the brain nevertheless missed the abscess. Drs. Fenger and Lee show by their case that this difficulty can be obviated by multiple exploratory aspirations, performed at interstices sufficiently small to prevent any abscess from escaping detection, even if the trephine opening should not have been made at the point of the skull nearest the abscess.

There are on record a large nnmber of cases of cerebral abscess in which trephining was performed, pus evacuted, and temporary relief obtained; but later relapse followed, and a fatal termination ensued. It is possible, judging from the success the practice has met with in the treatment of abscesses in other situations, that drainage of the cerebral abscess cavity, with or without washing out, would have saved some of these cases, by preventing the re-accumulation of pus and the continuous infection of the surrounding brain tissue, the acute edema of which is well known to be, as a rule, the final cause of death. As far as Drs. Fenger and Lee are aware, draining and washing out of cerebral abscess cavities has heretofore not been tried; that it can be effected, and without any detriment to the patient, is shown by their case, the treatment of which they hold strictly conforms to the rational method of modern surgery in treating abscesses in general; and because of this, and not because their patient recovered, they regard the case as answering affirmatively the question: Is it probable that abscesses in the brain can be treated advantageously on the same principle as abscesses in other parts of the body?

TRISMUS NEONATORUM; RECOVERY.—At a recent meeting of the St. Louis Medical Society (St. Louis Med. and Surg. Journal), Dr. Watkins reported a case of trismus neonatorum. He said that there was nothing remarkable to relate except that it recovered. Such patients almost invariably die. About six hours after birth the child presented symptoms of trismus, with characteristic convulsions, which continued for three days and a half before there was any cessation. A puff of cold air or the least movement of the bed-clothing would incite them. Bromide of potassium and chloral hydrate in doses of a grain of the former and a half a grain of the latter, every three hours, produced a marked amelioration of the convulsions and a general gradual improvement. The doses appear minute and insufficient, but they did control the convulsions.

Dr. A. Green said "trismus neonatorum is generally fatal in the very young. It is most remarkable that the child improved without medication so as to take nourishment after three days. I saw a child with trismus about three days after birth, and I medicated it immediately. I expressed an unfavorable prognosis, but notwithstanding an intercurrent capillary bronchitis, which is just as dangerous in an infant as trismus, the child recovered."

Dr. Wesseler saw a child whom the parents and relatives were all sure was dying, and he also felt certain of it. The child ceased to nurse, became blue in the face, and presented the usual symptoms of trismus neonatorum. I afterward saw a similar case recover. He gave chloral hydrate, a grain or more every two hours.

FOR hyperidrosis of the feet, Dr. Duhring has used the following with good results:

℞ Zinci oleati, ... 2 drams.
Amyli, ... } āā 3 drams.
Talci, ... }
M. Sig: Dusting powder.

This was applied to the feet after they had been washed with a lotion of tincture of belladonna.

DRY SULPHURIC ACID.—A German firm, Messrs. Vorster & Guneberg, of Cologne, have, it is said, patented a method of preparing sulphuric acid in a dry form, so that it may be packed and transported without danger, and with far less expense than in the liquid state. They have found that infusorial earth (Kieselguhr), in a dry and finely-powdered condition, is capable of absorbing from three to four times its weight of sulphuric acid of 66° without losing its

powdery character. This powder is packed in lead-lined iron cases, and can be sent any where over land or sea without danger of breakage and without having to pay extra freight. Sulphuric acid, so prepared, is said to be as suitable for petroleum refining, dynamite manufacture, and for the preparation of mineral waters as in its natural state. In other cases it is said to be quite practicable to recover the acid in fluid form, leaving the infusorial earth still suitable for dynamite manufacture.—*Ibid.*

CHLORATE OF POTASH A SPECIFIC IN TINEA TARSI AND PORRIGO FAVOSA.—Dr. C. C. P. Clark once had a case of tinea tarsi in a little girl. In spite of all the treatment recommended in the books, the morbid condition of the meibomian glands persisted in pouring out their sticky exudation. Considering its efficacy when internally exhibited as an alterative in certain affections of the mucous membranes, particularly of the mouth and throat, the patient was given full doses of this medicine—about a dram per diem. It worked like a charm. Repeatedly the disease returned, as is its wont, and was as often and as readily subdued. He has since constantly used this medicine in that complaint, and has never been disappointed.

Not long after a lad was brought to the doctor whose scalp was thickly bossed with huge, stinking, porriginous scabs. Reasoning from what was seen in the last-mentioned case, the same remedy was used to stay the morbid secretion in this, and with like good effect. The crusty hummocks disappeared, as a syphilitic node sometimes will under the use of the iodide of potash, only far more rapidly. He who tries this remedy in this disease, in full doses, will not turn again to the scalp-shaving, poulticing, etc., which is the customary practice.—*N. Y. Medical Journal.*

DETECTION OF LEAD IN CITRIC ACID.—Although perfectly pure citric acid is purchasable, it is well known that, as a rule, that acid is more or less contaminated with lead from the lead vessels, the use of which can not be avoided in the manufacture of the article. Theodor Pusch, of Dessau, points out that the official test in the new German Pharmacopeia, that of pouring sulphuretted hydrogen water over the crystalline acid, is by no means accurate, since the very acid solution thereby produced prevents any coloration, unless a considerable quantity of lead is present. The best test for the presence of lead in citric acid, originally proposed by the German Pharmacopeia Commission, consists in nearly neutralizing with ammonia a ten-per cent solution of the acid, and then mixing this liquid with two or three times its volume of sulphuretted hydrogen water. The presence of even minute quantities of lead at once produces a brownish coloration.—*Mineral Water Trade Review.*

DR. E. L. KEYES gives the result of his experiments in a number of cases of gonorrhea, with some of the methods of treatment which have recently been recommended, especially those by hot water and by corrosive sublimate. His temporary conclusions are as follows: (1) A mild corrosive-sublimate solution irritates the urethral mucous membrane more than it seems to irritate an open wound. (2) It appears that an abortive treatment of gonorrhea is yet to be discovered. (3) The hot-water treatment of gonorrhea is unreliable.—*Journal of Cutaneous and Venereal Diseases.*

EASY LIQUEFACTION OF OXYGEN.—It will be remembered that Messrs. Wroblewski and Olszewski some time ago succeeded in liquefying oxygen by the use of ethylene. M. Cailletet has searched for and found a body having a still lower boiling point than ethylene, and by means of which oxygen can be very readily liquefied. This substance is simply formene or marsh-gas, which, under light pressure and cooled in ethylene, boiling under the ordinary atmospheric pressure, is resolved into an extremely mobile, colorless liquid, which, in passing again into a gaseous state, causes such a lowering of temperature that oxygen in its neighborhood is immediately liquefied.—*Lancet.*

ABSORPTION THROUGH THE SKIN.—Günther has made experiments, with positive results, on the absorption of aqueous, ethereal, and alcoholic solutions through the human skin, skillfully contrived to guard against fallacies. The leg and foot were inclosed in a box, and completely isolated by close-fitting caoutchouc. When a one-per-cent ethereal solution of pilocarpin was applied in the form of spray, the characteristic effect of the drug was obtained. Applied in the same way, apomorphia produced nausea and feeling of indisposition, although not positive retching. — *Medical Times.*